IN THE SPECIFICATION

Please insert the following new heading and paragraph at page 1, line 6:

CROSS REFERENCES TO RELATED APPLICATIONS

This application is a national stage application of International Patent Application No. PCT/JP03/07534, filed on June 13, 2003, and claims priority to Japanese Patent Application No. 2002-175806, filed on June 17, 2002, both of which are incorporated herein by reference in their entireties.

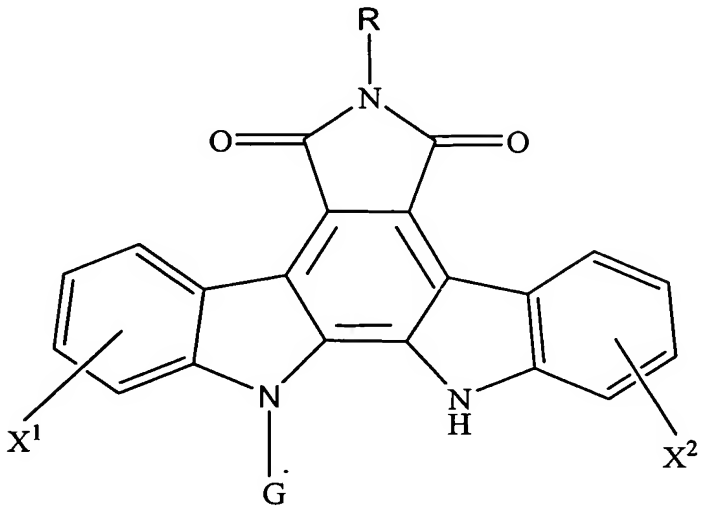
Please replace the Abstract with the following Replacement Abstract.

ABSTRACT

The present invention provides polymorphisms of ABCG2 polypeptide and polynucleotide coding therefor, which is related to the intracellular accumulation of indolocarbazole compounds, as well as methods for detecting the polymorphisms, comprising collecting a sample from mammals, and determining a polymorphism of the nucleotide sequence of *ABCG2* gene or a polymorphism of the amino acid sequence of ABCG2 polypeptide. In a preferred embodiment of the present invention, the polymorphism of the nucleotide sequence is one or more of single nucleotide polymorphisms at positions selected from the group consisting of 34, 376 and 421 of SEQ ID NO:1, and the polymorphism of the amino acid sequence is one or more of amino acid polymorphisms at positions consisting of 12, 126, and 141 of SEQ ID NO:2.

Please replace the paragraph beginning at page 3, line 7, with the following rewritten paragraph:

The *ABCG2* gene of SEQ ID NO:1 is a gene which confers a selective resistance on a cell to a compound of the following general formula (I) (hereinafter, referred to as "indolocarbazole compound"):



(I)

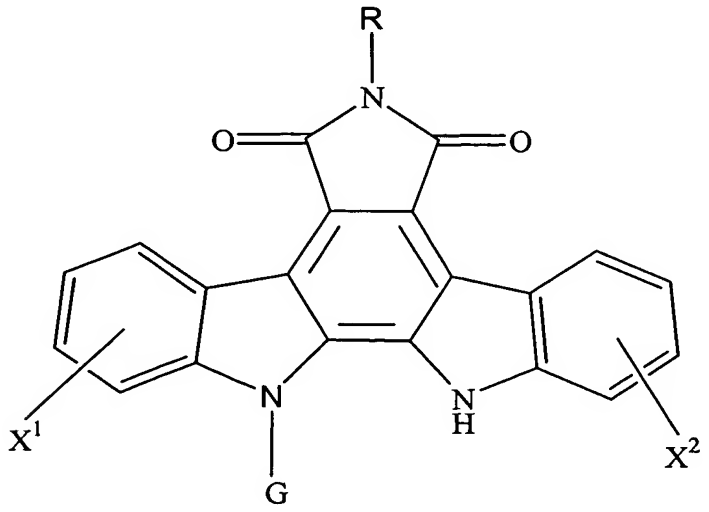
wherein X^1 and X^2 each independently represent a hydrogen atom, halogen atom or hydroxyl group; R represents a hydrogen atom, amino, formylamino, or lower alkylamino ~~which~~ wherein said lower alkylamino may be substituted with any one selected from the group consisting of one to three hydroxyl ~~group(s)~~, a pyridyl ~~group~~ optionally having substituent(s), and a thienyl ~~group~~ optionally having substituent(s); and G represents a pentose group or hexose group or derivative thereof which may be substituted with an amino group, more specifically, to the compound such as Compound A (wherein X^1 is 1-hydroxyl group, X^2 is 11-hydroxyl group, R is formylamino and G is β-D-glucopyranosyl group in the general formula (I)) and to the compound such as Compound B (wherein X^1 is 2-hydroxyl group, X^2 is 10-hydroxyl group, R is (1-hydroxymethyl-2-hydroxyl) ethylamino group and G is β-D-glucopyranosyl group in the general formula (I)).

Please replace the paragraph beginning at page 7, line 3, with the following rewritten paragraph:

[In the formula, X^1 and X^2 each independently represent a hydrogen atom, halogen atom or hydroxyl group; R represents a hydrogen atom, amino, formylamino, or lower alkylamino ~~which~~ wherein said lower alkylamino may be substituted with any one selected from the group consisting of one to three hydroxyl ~~group(s)~~, a pyridyl ~~group~~ optionally having substituent(s), and a thienyl ~~group~~ optionally having substituent(s); and G represents a pentose group or hexose group or derivative thereof which may be substituted with an amino group].

Please replace the paragraph beginning at page 11, line 15, with the following rewritten paragraph:

In the present specification, the term "drug" means a xenobiotic having a physiological activity including a cancer chemotherapeutic drug used for the purpose of treating cancer. It includes a synthetic compound, natural compound derived from plants or microorganisms and a semi-synthetic compound which is synthesized from the natural compound. Preferably, the "drug" means a compound represented by the following general formula (I) (hereinafter, referred to as "indolocarbazole compound"):



(I)

[wherein X^1 and X^2 each independently represent a hydrogen atom, halogen atom or hydroxyl group; R represents a hydrogen atom, amino, formylamino, or lower alkylamino ~~which~~ wherein said lower alkylamino may be substituted with any one selected from the group consisting of one to three hydroxyl ~~group(s)~~, a pyridyl ~~group~~ optionally having substituent(s), and a thienyl ~~group~~ optionally having substituent(s); and G represents a pentose group or hexose group or derivative thereof which may be substituted with an amino group]. More preferably, it means a compound of the general formula (I) wherein X^1 and X^2 each independently represent a halogen atom or hydroxyl group; R represents a hydrogen atom, formylamino, or lower alkylamino wherein said lower alkylamino may be substituted with any one selected from the group consisting of one to three hydroxyl ~~group(s)~~, a pyridyl ~~group~~ optionally having substituent(s), and a thienyl ~~group~~ optionally having substituent(s); and G represents a hexose group which may be substituted with an amino group. The production method and the like of the aforementioned indolocarbazole compounds have been disclosed in prior patent applications and registered patents (European patent publication 0528030 A1, U. S. Patent Nos. 5,591,842, 5,668,271, and 5,804,564, WO 95/30682, WO 96/04293, WO 98/07433 and JP Patent Kokai Publication No. JP-A-10-245390). Particularly with regard to the production methods of Compound A and Compound B, they are disclosed in JP Patent Kokai Publication No JP-A-6-128283 and WO 95/30682, respectively.